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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/817,405

04/02/2004

Dennis Muhlstein

6702

7590 08/20/2007  
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EXAMINER
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PAINTER, BRANON C

ART UNIT	PAPER NUMBER
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3609

MAIL DATE	DELIVERY MODE
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08/20/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/817,405

Applicant(s)

MUHLSTEIN, DENNIS

Examiner

Branon C. Painter

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 5, and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Erickson et al. (U.S. Patent No. 6,266,931).
3. Regarding claim 1, Erickson et al. discloses a screw drive assembly having all of the applicant's claimed structure, including:
  - a. "A moveable wall comprising: a panel..." ("sliding floor" 11, Fig. 1).
  - b. "...a first bracket connected to a first side of said panel..." ("nut flange" 23 and "nut" 22 combined, Fig. 4).
  - c. "...a second bracket connected to a second side of said panel..." ("nut flange" 23 and "nut" 22 combined, Fig. 4; Fig. 6 shows an embodiment with two identical drive screws mated by a drive shaft, each drive screw having the same components).
  - d. "...a first screw...located on the first side of said panel and engaging said first bracket..." ("drive screw" 20, Fig. 6).
  - e. "...a second screw...located on the second side of said panel and engaging said second bracket ..." ("drive screw" 120, Fig. 6).
  - f. "...a motor..." ("motor" 31, Fig. 6).

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- g. "...a shaft rotatable by said motor..." ("cross shaft" 42, Fig. 6).
- h. "...a first gearbox being connected to said shaft...further being connected to said first screw..." ("gearbox" 35, Fig. 6).
- i. "...a second gearbox being connected to said shaft...further being connected to said second screw ..." ("gearbox" 45, Fig. 6).
- j. "...wherein rotation of said shaft rotates said first screw and said second screw at an equal rate of rotation." ("The second gear can, in certain preferred embodiments, connect the gearbox via a cross shaft to a second gearbox which is in turn attached to a second drive screw. The second drive screw drives a second ram attachable to the sliding floor. In this manner operation of the motor or motors drives both rams substantially simultaneously," column 2, lines 27-33).

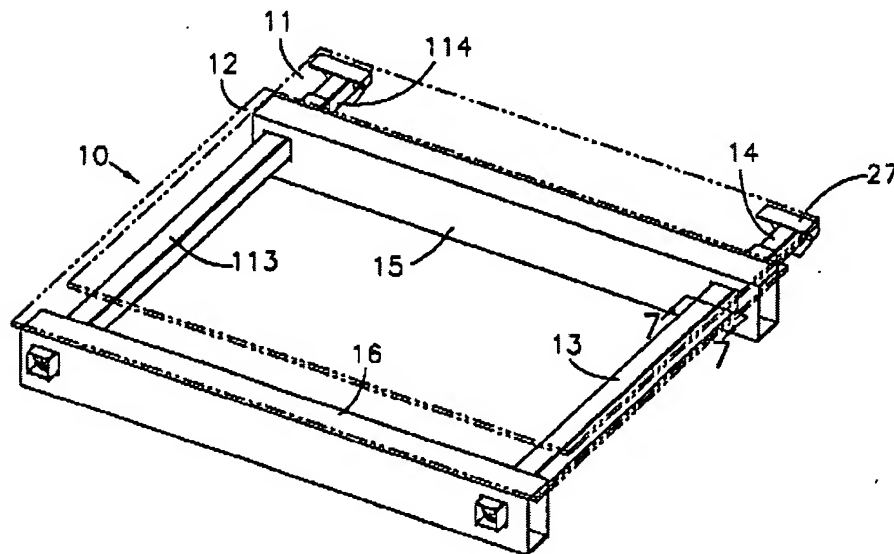


FIG. 1

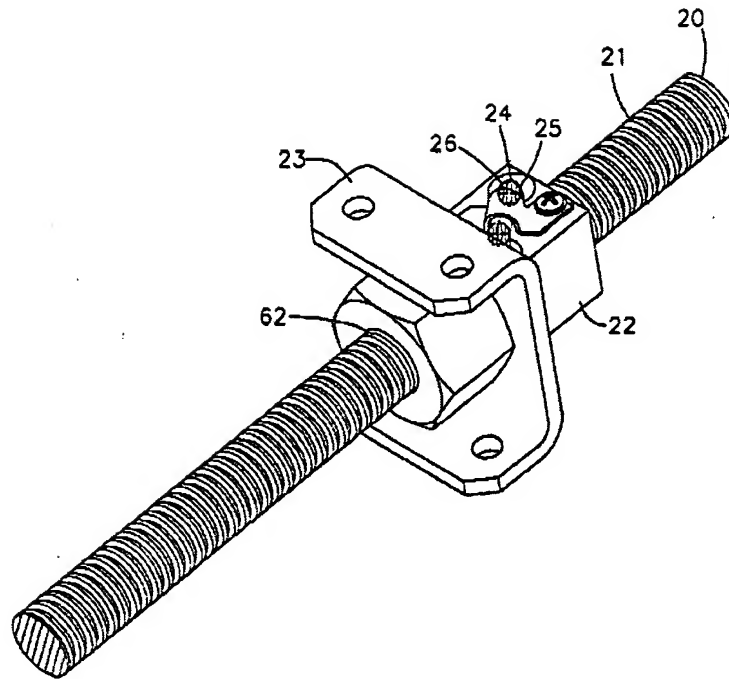


FIG. 4

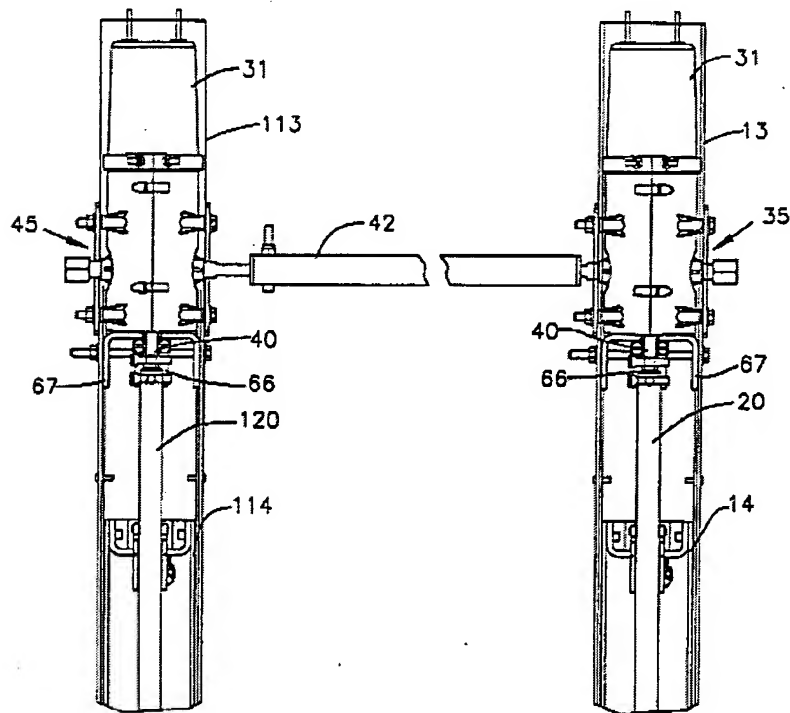
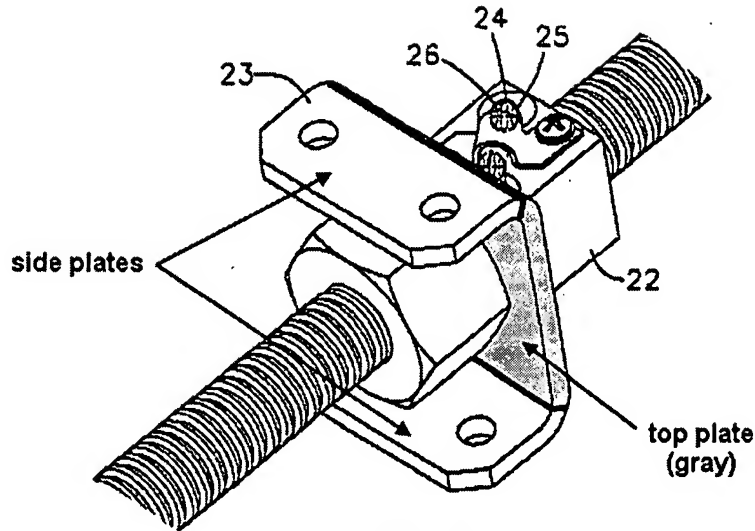


FIG. 6

4. Regarding claims 2 and 3, Erickson et al. discloses a limiting mechanism to stop said motor from rotating said shaft [claim 2], the limiting mechanism being a contact switch [claim 3] ("The motor may be actuated by a remote mounted switch (not shown) and wired so that when the switch is in a neutral position dynamic braking is engaged and when the switch is an [sic] on position dynamic braking is disengaged," column 4, lines 24-45).
5. The examiner further notes that the use of contact switches to start or stop the rotation of a motor is notoriously well-known in the art.
6. Regarding claims 5 and 6, Erickson et al. discloses a first and second bracket including:
  - a. "a top plate..." ("top plate," examiner amended Fig. 4).
  - b. "...two side plates, said side plates supporting said top plate..." ("side plates," examiner amended Fig. 4).
  - a. "...a ball screw, said ball screw engaging said first and second screws."  
("nut" 22 with "balls" 24, Fig. 4).



Reproduced from U.S. Patent No. 6,266,931 (Amended by examiner)

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Erickson et al. (U.S. Patent No. 6,266,931) in view of Jessup (U.S. Patent No. 4,217,616).
- a. Erickson et al. discloses a screw drive assembly as set forth above.
  - b. Erickson et al. does not expressly disclose that the assembly's limiting mechanism is a timer.
  - c. Jessup discloses the use of a timer circuit as a limiting mechanism to prevent motor overload ("Previous efforts to protect a motor against overload conditions have included...timer circuits which automatically turn the motor off within that time which it normally takes to open or close the door," column 1, lines 24-28). Using a timer limiting mechanism as taught by Jessup prevents the motor from overloading.
  - d. The examiner further notes that the use of timer circuits to prevent motor overloading is notoriously well-known in the art.
  - e. Erickson et al. and Jessup are analogous art because both are from the field of endeavor of motor overload limiting mechanisms.
  - f. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to replace the dynamic braking of Erickson et al. with a timer circuit as taught by Jessup, in order to prevent motor overloading.

### ***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The examiner notes that the prior art is replete with examples



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of contact switches used as limiting mechanisms. For example, Thorley (U.S. Patent No. 4,176,999) teaches a wheelchair lift with "a mat-type contact switch...actuated whenever the platform touches ground or an obstacle" (column 6, lines 18-21). Additionally, Fox (U.S. Patent No. 6,398,477) teaches a hand truck with "contact electrical switch strips mounted on the outer one of each of the extruded side rails [making] it easy for an operator to control energization of the motor" (column 1, lines 66-67 through column 2, lines 1-2).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Branon C. Painter whose telephone number is (571) 270-3110. The examiner can normally be reached on Mon-Fri 7:30AM-5:00PM, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Victor Batson can be reached on (571) 272-6987. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Victor Batson  
Supervisory Patent Examiner  
Art Unit 3609

Branon Painter  
07/17/2007